

REMARKS

This Amendment is responsive to the Office Action of August 03, 2010.

STATUS OF CLAIMS

Claims 1-17, 20, 22, 23, 33, and 35-38 have been previously cancelled. Claim 32 has been cancelled by this Amendment. Claim 35 has been cancelled and replaced by new Claim 40 to agree with the Examiner's renumbering of erroneously numbered Claim 35 in the previous Amendment. New Claims 41 - 50 have been added to provide additional protection for certain aspects of the invention. Accordingly, Claims 18, 19, 21, 24-31, 34, and 39-50 are pending in the application.

AMENDMENT OF CLAIMS

Independent Claim 18 has been amended more specifically to recite that the energy source is an acoustic energy source. No change in substance is intended.

Claims 31 and 34 have been amended to adjust their dependencies. New Claim 40, replacing cancelled Claim 35, is dependent from Claim 18.

New Claim 41 is supported at least by the specification at page 8, line 14, and by the drawings.

New Claim 42 is supported at least by Fig. 2 of the drawings, which shows that the container for the liquid to be nebulized is open to the atmosphere.

New Claim 43 is supported by the specification at page 8, line 30, to page 9, line 1, and by the drawings.

New Claim 44 is supported at least by Fig. 2 of the drawings, which shows that the guided spout is emitted with a diameter equal to that of the upper end of tube 34.

New Claims 45-50 are supported by the specification and drawings generally, especially page 8, line 10 to page 9, line 14, and Fig. 2.

DRAWINGS

It is believed that the amendments to the drawings remove the basis for the objection to the drawings.

CLAIM REJECTIONS - 35 U.S.C. § 103(a)

Claims 18, 19, 21, 24-32, 34, 35 (renumbered as 40) and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishikawa, U.S. Patent 4,410,139 (Nishikawa) in view of Khmelev, et al., RU 2070062 (based on an English language translation of the reference provided by the Office) (Khmelev).

The rejection is respectfully traversed.

The primary reference, Nishikawa, discloses a nebulizer comprising generally conventional elements, i.e., a container for a liquid to be nebulized, and an ultrasonic transducer located generally at the bottom of the container and directing its energy generally upward to produce a liquid projection at the surface of the liquid that is the source of the aerosol particles. The Office, referring to Nishikawa's Fig. 6, identifies Nishikawa's cylinder 30 as "an acoustic transmitter pipe", having one end (lower end) immersed in the liquid, and wherein the energy is transmitted from the "energy source 4" to a "focal region (C)" proximate said one end of the acoustic transmitter pipe. Applicant does not see in Nishikawa any mention of a focal region, and Nishikawa's "projection (C)" is evidently proximate to the upper end of cylinder 30, not to the lower end thereof.

In any case, the Office recognizes that Nishikawa fails to teach a focal region of the liquid proximate an immersed end of an acoustic transmitter pipe whereby the liquid is forced toward an opposite end of the acoustic transmitter pipe.

The secondary reference, Khmelev, does not remedy this deficiency of the primary reference. The Office asserts that Khmelev teaches an ultrasonic nebulizer with a focal

region (20) proximal to a tubular energy pipe (17) whereby the liquid is forced toward the opposite end of the pipe.

However, the end of Khmelev's sleeve (17) that is proximal to his focal region (20) is not immersed in the liquid to be nebulized as recited in Claim 18.

Furthermore, Khmelev's focal region (20) is located at the surface of the liquid (translation, page 6, line 15), not proximate the lower end of a tube immersed in the liquid to be nebulized. Inasmuch as Nishikawa's projection (C) is also located at the surface of the liquid to be nebulized, there is no teaching or suggestion in the applied references to configure a source of acoustic energy for transmission of the acoustic energy to a focal region of the liquid proximate an immersed end of an acoustic transmitter pipe whereby the liquid is forced toward an opposite end of the acoustic transmitter pipe and nebulised within the aerosol tube, as recited in Claim 18.

Consequently, Claims 18-19, 21, 24-31, 34, 39, and 40 are allowable over the applied references, and withdrawal of their rejection under 35 U.S.C. § 103(a) is respectfully requested. New Claims 41-43 are also allowable, at least as dependent from allowable Claim 18. In particular, new Claim 43 recites that the energy source and the acoustic transmitter pipe are configured such that a guided spout of

the liquid to be nebulized is emitted from the opposite end of the acoustic transmitter pipe, a configuration that is not taught or suggested by the applied references.

Claims 28-29 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishikawa and further in view of Khmelev, and further in view of Sheiman (WO 99/42145) (Sheiman).

Initially, Applicant observes that Claims 28-29 and 39 are patentable at least as dependent, directly or indirectly, from allowable Claim 18. Accordingly, whatever disclosures of Sheiman regarding the components of the nebulizer disclosed therein are selected and combined with the disclosures of Nishikawa and Khmelev to remedy their admitted deficiencies, the resulting combination does not make obvious Claims 28-29 and 29. Accordingly, withdrawal of their rejection under 35 U.S.C. § 103(a) is respectfully requested.

Furthermore, as is evident from the above discussion of Claim 18, the newly presented independent Claim 45 and Claims 46-50, dependent therefrom, are also patentably distinguished from the disclosures of the applied references.

Regarding the Examiner's response to Arguments, Applicant agrees regarding Item 9 that the arguments are

moot. However, Applicant reserves the right to contest the asserted characterization of Khmelev, should it later become necessary to do so.

In view of the above amendments and discussion, Applicant respectfully submits that all claims in the application are allowable.

Accordingly, withdrawal of the outstanding rejections is requested, and an early Notice of Allowance is respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

Date: September 21, 2010
Miles & Stockbridge P.C.
1751 Pinnacle Drive
Suite 500
McLean, Virginia 22102-3833

By: /Mitchell W. Shapiro/
Mitchell W. Shapiro
Reg. No. 31,568

George W. Swenson
Reg. No. 25,461

(703) 903-9000

MWS:GWS